

THE ACS-CWS WELCOMES E. GERALD MEYER

*The Hydrogen Economy:
The Good, the Bad, and the Ugly*
7:30 PM, Wednesday, March 11, 2009
A121 Science Building
UW-Stevens Point

Much has been written about the "hydrogen economy" with the theme that with the substitution of hydrogen for gasoline the nation can (a) reduce its dependence on foreign oil, and (b) have a pollutionfree transportation fuel. That is "the good". There is, however, the matter of transporting, distributing and storing. With hydrogen these are very difficult problems to solve. In addition there is the problem of utilizing hydrogen in a vehicle which means either the traditional combustion system or a new fuel cell system. The former may not pose serious problems, but the latter does as fuel cells currently do not have the power, the reliability, and the stability needed. Further the cost of the fuel cell system is very much above that of the gasoline system it is to replace. That is "the bad". Hydrogen production is "the ugly". Current hydrogen production of about 9 tons/yr. must be increased some eighteenfold just for current use. Further, hydrogen is a secondary energy type and must be produced with a primary energy type. Hydrogen, unlike electricity the other secondary energy type, requires a substrate for its production. The two possibilities are hydrocarbons, and "hydrooxygen" (water). The former produces CO₂ along with hydrogen so that fossil fuel pollutant it not eliminated. The latter must either be thermally dissociated or electrolyzed, and if fossil fuels are not to be used the only alternative is nuclear energy. The hydrogen economy concept is fine, but the realization will be very very difficult.

BIOGRAPHY

Dr. E. Gerald Meyer was born in Albuquerque, NM and attended Carnegie Mellon University (B.S. in 1940 and M.S. in 1942), and the University of New Mexico (Ph.D. in 1950). He was a laboratory chemist for the U.S. bureau of Mines, the U.S. Naval Research Laboratory (as a naval officer during WWII), and the Research Division of New Mexico Tech before returning to complete his graduate work. He was on the faculty of the University of Albuquerque (1950-92), and New Mexico Highlands University (1952-63) where he was successively department head, and dean of graduate studies and research. In 1963 he was appointed professor and dean of arts and sciences at the University of Wyoming, and in 1976 vice president for research. In 1990 he retired and is currently emeritus professor and dean and works part-time. Dr. Meyer has served as State Science Advisor, as president of Council of Colleges of Arts and Sciences, of the Associated Western Universities, and the Laramie Regional Airport Board. He chairs the ACS Rocky Mountain Regional Meeting, is past president of the American Institute of Chemists, is past chair and councilor of the ACS Wyoming Section, and has served and continues to serve on the ACS national committees.

Dinner will be held at Michelle's Restaurant (513 Division Street, Stevens Point, WI) at 6:00PM (Socializing at 5:30PM)

Dinner reservations can be made with Jason D'Acchioli (jdacchio@uwsp.edu, 715-346-2297) by Tuesday afternoon, March 10, 2009